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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,757	03/26/2001	John C. Hebeisen	022723-0017	7870
21125	7590	10/12/2004	EXAMINER	
NUTTER MCCLENNEN & FISH LLP WORLD TRADE CENTER WEST 155 SEAPORT BOULEVARD BOSTON, MA 02210-2604			PADGETT, MARIANNE L	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 10/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/817,757	HEBEISEN ET AL.
	Examiner	Art Unit
	Marianne L. Padgett	1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
 THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04 June 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-6,9-17,19 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 19 and 23 is/are allowed.
- 6) Claim(s) 1-5,9-17,21 and 22 is/are rejected.
- 7) Claim(s) 6 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____ .

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claim 21 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Becker et al (4,477,955) as discussed previously in sections 4 & 6 of paper # 10 (mailed 11/6/02), section 5 of paper # 12 (mailed 5/22/03) and section 6 of action mailed 3/3/04; optionally further in view of Van Nederveen et al (EPO 0030055) as discusses in section 7 of the action mailed 3/3/04.

Applicant's arguments concerning the first material and the core being substantially enclosed within a capsule (p.6 of 6/4/04 remarks) would be convening for removing Becker et al, except that claim 21 does NOT require the core to be within the capsule, but is instead silent on the positioning/relationship of the core and capsule, so arguments applied previously are still considered appropriate. Should claim 21 be amended to be commensurate in scope with

applicant's argument than the rejection over Becker et al would be removed. Also note that "core" does not exclude the core being hollow and coating its inner surfaces, since as claimed the core does not eliminate any particular shapes.

With respect to Van Nederveen, it is agreed that this secondary reference does not provide any teaching on sacrificial core, but does discuss encapsulated cores for coating, hence its relevance to claim 21, where the core is NOT sacrificial remains, but it is agreed that it lacks relevance to cover the sacrificial aspect of claim 1 and its dependents, hence those claims are removed from this rejection.

3. Claims 1-5, 9-14 and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Ritter et al (5,822,853) as disclosed in section 6-7 of paper # 12 (mailed 5/22/03) and section # 9 of the action mailed 3/3/04.

Applicant's allege that the examiner has failed to point out disclosure in Ritter identifying the claimed arrangement, however, the examiner is unclear as to what is meant by this, since the discusses of section #9 of 3/3/04 just paraphrase teaching as already discussed in section 6 of paper #12, where explicit citations in Ritter et al were given. The sacrificial channel fillings are equivalent to the claimed sacrificial cores, fulfilling like function as claimed including coating in positions as claimed. If applicants are intending some significantly different configuration or shape or endues, the claims will need to be more specific to differentiate over the Ritter et al procedure.

Note in claim 1, there are no relative relationships of properties of the first and second materials, while claim 2 and 21 require such, but since 1st being more corrosion and/or wear resistant than the second, depends on particular environmental exposure, which is not specified,

this must be broadly considered to read on essentially any or multiple possible environments and it has been noted that Ritter's coatings are made for use in turbine engines, hence were considered to inherently have corrosion and wear resistant properties for that environment. For example, note with respect to figure 7 that sacrificial materials are 82 and 84, where sacrificial materials and 88 and 80 are formed by HIP powder compaction, with 80 being an outer coating on sacrificial channel (core) 82, and where all may be of various alloys, so need not all be the same (col. 5 lines 1-20), hence having different relative corrosion and wear proportion. While not all combinations will be of the relative relationship claimed in all environments, some combination for some environments will be, which is sufficient for the generic broad all encompassing relationship of the claims as written.

4. Claim 6 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Applicant's arguments filed 6/4/04 and discussed above have been fully considered but they are not persuasive.

Other art of interest for sacrificial core coating processes includes Gebhart (6,676,825).

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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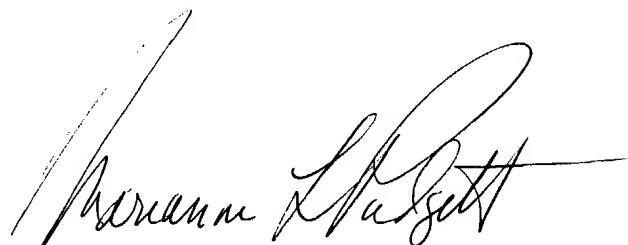
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on Monday-Friday about 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. L. Padgett/af
September 2, 2004
October 8, 2004



MARIANNE PADGETT
PRIMARY EXAMINER